## Leidy, Robert

From: Lomeli, Ben <blowneli@blm.gov>
Sent: Tuesday, January 28, 2014 9:02 AM

To: Leidy, Robert

Cc: Simms, Jeffrey R; Marcia Radke

Subject: Rosemont Mine Files

Attachments: Rosemont FEIS Review Comments-BL.docx; Rosemont Mine Hydrology Review

Comments on Seeps.docx; Salient Points and Mitigation Goals for Rosemont Mine Impacts.docx; Rosemont Hydo cover letter.docx; Rosemont Mine Draft Environmental Impact Statement Review.docx; Rosemont Mine Draft Environmental Impact Statement

Review of Chapter 3.doc; Review Comments on Rosemont Mine 404 Permit

Application.docx; June 2011 - Rosemont Mine Draft Environmental Impact Statement Review of Chapter 3.doc; Rosemont Mine Monitoring and Mitigation proposed Measures - BL comments.docx; Park Service Quote on Rosemont.docx; Rosemont Emails gagOrder.pdf; Draft Rosemont Mine Mitigation and Monitoring Proposal.docx

Only first 4 attachments sent by BLM (highlighted in yellow).

3 docs withheld in full - b5 deliberative - Rosemont FEIS Review Comments - 5pp

- Rosemont Mine Hydrology Review – 4pp

- Salient Points and Mitigation Goals- 4 pp

Attached please find some of the files we discussed yesterday. If you need/want Jeff Simms, Marcia Radke and I to attend the tour tomorrow, just let us know via email or by phone.



Rob,

Ben Lomeli, CFM Hydrologist, Tucson Field Office 3201 East Universal Way Tucson, AZ 85756

(b) (6)

<sup>&</sup>quot;We do not inherit the Earth from our ancestors, we borrow it from our children." Native American Proverb.

## United States Department of the Interior



## BUREAU OF LAND MANAGEMENT Tucson Field Office 12661 East Broadway Boulevard Tucson, Arizona 85748-7208 www.blm.gov/az/



April 29, 2011

Mr. Jim Upchurch Forest Supervisor Coronado National Forest 300 W. Congress Street Tucson, AZ 85701

Dear Mr. Upchurch,

On February 15, 2011, your office hosted a meeting for the Bureau of Land Management, Tucson Field Office (BLM) to address the technical aspects of the ground water modeling process for the ongoing Rosemont Mine Environmental Impact Statement (EIS). BLM specialists for hydrology, mining and threatened and endangered species attended that meeting.

Technical discussions held at that groundwater model meeting revolved around many issues , including but not limited to, the adequacy of the two groundwater models currently being considered, questions concerning the scope of the pump testing and data issues concerning the Cienega watershed located east of the proposed open pit. BLM's focus and concern for the technical accuracy and subsequent presentation of results of the models in the EIS is focused primarily on the predicted effects on the BLM lands surrounding the proposed mine site, particularly the Cienega Creek watershed.

The limitation to the accuracy of computer modeling is related to the fact that detailed information on fractured hydrologic systems required is neither technically possible, nor economically feasible at the scale necessary at this site. As a result, some loss of computer generated estimate reliability should be anticipated. This information should be stated in the EIS to qualify the reliability of computer generated estimates of surface and ground water resources.

Because of the quantity and type of limitations to computer simulation of ground water impacts to aquatic and riparian resources, it is unlikely that modeling will have sufficient resolution for reliable estimates of flow direction and volumes required for an adequate analysis of the effects to Cienega Creek. However, general impacts from reduced aquifer recharge from capture by the proposed mine pit can be stated qualitatively with reasonable certainty.

BLM is not advocating for additional efforts to address the short comings of the model and related analysis. We recognize that it is unlikely that current modeling techniques have sufficient resolution for reliable estimates of flow direction and volumes required for an adequate analysis of impacts to distant, relatively small and highly sensitive aquatic and riparian resources

in such a complex geologic setting. However, given the acknowledged limitations, the EIS should qualitatively and succinctly reflect all model limitations, assumptions and inadequacies; and clearly state the implications of such to the accuracy and reliability of any impact predictions.

As a follow-up to the discussion on February 15<sup>th</sup>, we have provided the enclosed comments and referenced data for your consideration and review. If you have any additional questions regarding these comments, please contact me at 520-258-7201.

Sincerely,

Brian B. Bellew

Enclosures